

A PREDICTIVE STUDY OF TEACHER SUPPLY  
AND DEMAND IN KANSAS, 1967-1968

by

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B. S., Kansas State University, 1964

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A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

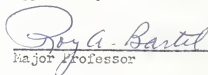
MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1968

Approved by:

  
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#### ACKNOWLEDGMENTS

I would like to thank Dr. Roland Swaim for his assistance in interesting me in the teacher supply and demand problem and the Department of Certification and Accreditation, State Department of Public Instruction, Topeka, Kansas, which was very generous in allowing me to use its records and statistics in my research. I would also like to thank Dr. Roy A. Bartel who provided me with invaluable guidance and encouragement in the research and writing of this report.

# TABLE OF CONTENTS

| CHAPTER                                   | PAGE |
|-------------------------------------------|------|
| THE PROBLEM AND DEFINITIONS OF TERMS USED | 1    |
| I. THE PROBLEM                            | 1    |
| Statement of the problem                  | 1    |
| Importance of the study                   | 2    |
| Limitations of the study                  | 3    |
| II. DEFINITIONS OF TERMS USED             | 3    |
| Supply                                    | 3    |
| Demand                                    | 4    |
| New teacher                               | 4    |
| School year                               | 4    |
| Field                                     | 4    |
| Shortage                                  | 5    |
| Excess                                    | 5    |
| III. REVIEW OF LITERATURE                 | 5    |
| IV. ANALYSIS OF THE SUBJECT MATTER FIELDS | 11   |
| Agriculture                               | 12   |
| Art                                       | 14   |
| Commerce                                  | 14   |
| English                                   | 14   |
| Foreign languages                         | 14   |
| Home economics                            | 15   |
| Industrial arts                           | 15   |

|                                                                        |    |
|------------------------------------------------------------------------|----|
| Journalism                                                             | 16 |
| Library science                                                        | 16 |
| Mathematics                                                            | 16 |
| Music                                                                  | 17 |
| Physical education                                                     | 17 |
| Science (including general science, biology, chemistry<br>and physics) | 17 |
| Social studies                                                         | 18 |
| Speech                                                                 | 18 |
| Other                                                                  | 19 |
| Elementary                                                             | 19 |
| V. SUMMARY                                                             | 26 |
| BIBLIOGRAPHY                                                           | 29 |
| APPENDIX A                                                             | 33 |

## LIST OF TABLES

| TABLE                                                                                                            | PAGE |
|------------------------------------------------------------------------------------------------------------------|------|
| I. Predicted excess or shortage of teachers for Kansas,<br>1967-1968                                             | 13   |
| II. Salary information of Kansas and adjacent states                                                             | 21   |
| III. Selected non-teaching occupations of persons<br>graduated between September 1, 1964, and August 31,<br>1965 | 24   |

## THE PROBLEM AND DEFINITIONS OF TERMS USED

Numerous studies have been made concerning teacher supply and demand. Accurate estimates of present and future supply and demand would be invaluable tools in the hands of counselors, teachers, administrators, and those individuals considering teaching as a possible career. However, a limited amount of study has been done concerning the ratios of new teachers needed to the number produced in a given state. This accumulation of information may then be compared to similar information obtained at the national level to determine if the state information tends to follow the same pattern as information obtained at the national level.

### I. THE PROBLEM

Statement of the problem. The purpose of this study was to establish bases for predicting, as accurately as possible, the excess or shortage of teachers by fields for the state of Kansas in 1967-1968. The following steps establish the procedures used in predicting either shortage or excess of teachers.

- (1) To determine the number of teachers prepared in Kansas colleges and universities in 1962-1966, who actually taught in Kansas in the year following graduation. This was done by subject matter fields and is shown in Table I as a percentage.

- (2) To determine the number of teachers prepared in Kansas by subject matter fields in 1966-1967.
- (3) To apply the statistics developed in step (1) to the statistics in step (2) in order to attempt to predict the number of teachers prepared in each field in Kansas who will probably teach in Kansas in 1967-1968.
- (4) To determine the number of new teachers employed in Kansas in each subject matter field in the year 1965-1966.
- (5) To compare the figures in step (3) and step (4) which could predict either an excess or shortage of teachers for each subject matter field for the coming school year, 1967-1968.

Importance of the study. The problem of being able to estimate accurately teaching needs for a state has existed for many years. Factors probably affecting entry into actual teaching after graduation in any given state are:

1. Teaching salaries.
2. Population mobility.
3. Immediate entrance to graduate study.
4. The draft, which affects men more than women.
5. Becoming a homemaker, which affects women more than men.
6. Entering a profession other than teaching.
7. Federal government programs.

This study attempted to determine, as accurately as possible, the excess or shortage of teachers in the respective teaching fields for the year, 1967-1968. The information presented in this report

would be helpful in the hands of counselors of students as they shape their educational programs and consider occupational choices.

Limitations of the study. The data for this study was compiled from statistics obtained at the State Department of Public Instruction, Topeka, Kansas, and the annual research reports titled "Teacher Supply and Demand in Public Schools" published by the National Education Association. The supply statistics for the year 1966-1967, are estimates, but actual statistics should be available by November, 1967. Percentages in the report are given as whole numbers. Where answers occurred in tenths of one percent, the percent was rounded out to the nearest whole number. Statistics in this report are only as accurate as those individuals supplying the data reported them. To be useful in years to come, this study should be updated each year for the benefit of counselors, teachers, administrators, and those individuals considering teaching as a possible career.

## II. DEFINITIONS OF TERMS USED

Supply. Supply refers to the number of teachers qualified to fill positions in both elementary and secondary schools. Most of the qualified new teachers are supplied from the following sources:

(1) graduates currently completing teacher education programs, (2) former teachers who are currently interested in re-entering classroom teaching, and (3) teacher education graduates of previous years who currently are interested in entering the profession for the first time. The small remaining portion of the supply of new teachers comes from the pool of

qualified teachers who have been assigned to nonteaching positions in the public schools, or have been teaching in higher education, and the pool of persons who have obtained through experience and specialized training the skills which will allow their placement in certain teaching positions at least on a temporary basis.<sup>1</sup>

Demand. Demand represents the number of positions to be filled in both elementary and secondary schools. Factors which account for demand are: (1) replacement of those teachers who leave full-time service in the elementary and secondary classrooms of the nation, (2) increasing total student enrollment, (3) eliminating half-day sessions, (4) relieving overcrowding by reducing class size, (5) providing instruction and special services not now offered, and (6) replacement of those teachers lacking adequate preparation.

New teacher. A teacher who did not hold a regular teaching position anywhere the preceding school year.

School year. School year means a year beginning September 1, and ending August 31, of the following year.

Field. Field refers to the subject in which a teacher is prepared to teach. Fields in this report are elementary and the various subjects at the secondary level. Secondary fields include agriculture, art, commerce, English, foreign languages, home economics, industrial arts, journalism, library science, mathematics, music,

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<sup>1</sup>National Education Association, Research Division, Teacher Supply and Demand in Public Schools, 1966 (Research Report 1966-R16. Washington: National Education Association, 1966), p. 10.

physical education, general science, biology, chemistry, physics, social studies, speech and other subjects.

Shortage. Shortage means a deficiency in the supply of teachers in a given field.

Excess. Excess refers to a surplus in the supply of teachers in a given field.

### III. REVIEW OF LITERATURE

Ray C. Maul has done more research in teacher supply and demand than any other person. Maul has conducted each of the first eighteen annual national studies of teacher supply and demand in elementary and secondary schools. Other individuals have done research in this area, but none have done as much as Maul. The following information indicates a number of Maul's assumptions and conclusions.

The most unfortunate aspect of the general teacher supply-demand situation is the unbalanced division of the whole group of new candidates between the elementary and high school grade levels. The most imperative need has been, and continues to be a much larger supply of adequately prepared teachers for the elementary grades. It far overshadows the maldistribution of potential high school teachers among the high school fields,... Moreover, the recent trend is away from, rather than toward a solution of this major problem.<sup>2</sup>

The 1958 report shows a further widening of the imbalance between the new supply of elementary and the new supply of high school teachers.

Surely each prospective teacher should enjoy complete freedom in selecting the grade level and the subject-matter field of his choice, but this choice should be made with full knowledge of the number of existing positions and the number of prospective candidates in each field. Much up-to-date

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<sup>2</sup>Ray C. Maul, "The Teacher Shortage Persists," The American School Board Journal, CXL (May, 1960), 19.

information is becoming available through national and state-wide studies. Through the use of this material, the counseling of these students might be made more effective.<sup>3</sup>

The continuing shortage is not a matter of the interest of bright young men and women in teaching; it is not a matter of numbers prepared by the colleges; the vital factor is the competition of other occupations also wanting these educated persons prepared to perform the complex tasks now required by our society. It is inevitable that the shortage of competent teachers will continue until the financial structure of the public school system is greatly strengthened. The end of the teacher shortage is not in sight, nor is it likely to be until a great majority of the districts improve their salary schedules.<sup>4</sup>

To maintain the needed balance between elementary and high school teachers, eight new bachelor's-degree graduates should enter elementary classrooms for every five going into high-school classrooms. The trend since 1955, however, .... has been for more and more graduates to prepare for high-school teaching.<sup>5</sup>

The previous paragraph indicates predictions made in 1960, and the following statement is a 1963 prediction by Maul. Future needs will continue to require the ratio of about nine elementary school to six high school teachers. However, the ratio of eligible new teachers graduating from college has never been better than six elementary to nine high school teachers. "The greatest challenge to the profession, therefore, is how to attract a far greater proportion of new teachers for service in the elementary grades."<sup>6</sup>

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<sup>3</sup>Ray C. Maul, "Growing Complications in Teacher Supply and Demand," The American School Board Journal, CXXXVI (May, 1958), 31-2.

<sup>4</sup>Ray C. Maul, "Can the Teacher Shortage Be Solved?," The American School Board Journal, CXLIII (May, 1961), 19.

<sup>5</sup>Ray C. Maul, "A Changing Trend in Teacher Supply," NEA Journal, XLIX (October, 1960), 37.

<sup>6</sup>Ray C. Maul, "The Changing Nature of the Teacher Shortage," NEA Journal, LII (November, 1963), 42.

Maul also states, "It's not that teacher shortages are a thing of the past; the troublesome fact is that there is a frustrating oversupply of talent in some areas and a tragic lack in others."<sup>7</sup>

Maul further concludes that the teacher shortage is now selective by type of school, community, region, grade level, and subject. In 1965, for the first time, the number of new graduates eligible for standard certificates was actually larger than the total number of new teachers employed. "In gross numbers, the new supply could be said to be equal to the demand."<sup>8</sup>

Research by other individuals in the field of teacher supply and demand indicates other methods or formulas used in predicting future teacher supply and demand needs. Martin H. Bartels developed The Index of Teacher Demand (known simply as Index). The Index was developed from materials produced annually for a number of years by the NEA Research Division. Again, the influence of Maul's research should be noted. The Index is obtained by the following formula and is expressed as percent demand is of supply.

$$\text{INDEX} = \frac{\text{New Teachers Employed}}{\text{Teachers Newly Prepared for Certification}} \quad 9$$

In the Index for 1963, Bartels concludes that the greatest demand for teachers today is in the elementary field, general science, mathematics, chemistry, library science, and foreign languages.

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<sup>7</sup>Ray C. Maul, "Changing Patterns in Teacher Supply and Demand," Ohio Schools, XLIV (February, 1966), 16-7.

<sup>8</sup>Ray C. Maul and Frank E. Oneal, "New Problems in Teacher Supply and Demand," Illinois Education, LIV (March, 1966), 304.

<sup>9</sup>Martin H. Bartels, "Index of Teacher Demand for 1958," Journal of Teacher Education, XI (March, 1960), 15-7.

Bartels has no data for indexes in special education fields, but he believes that these indexes, if available, would be very high.

Bartels states,

The indexes produced coincide rather well with demand studies in higher education fields, as well as with observations in the field of business and industry employment, where an acute demand exists for people qualified in scientific, mathematical, and linguistic abilities. The Index is useful to future teachers in indicating employment strength in various fields of teaching.<sup>10</sup>

During a study of future teacher needs conducted by Leslie J. Chamberlin for the entire St. Louis, Missouri, public schools, the following procedure was developed which could possibly be applicable to other school systems.

The first step estimates the number of teachers needed to replace the least competent teachers. Then, in the second step, estimates are made of the number of teachers needed to replace those who leave classroom service because of death, retirement, resignation, and other reasons. The third step estimates the number of teachers needed to serve increased enrollment. These first three steps were labeled under analysis of teaching staff.

The fourth and fifth steps were labeled under pupil-teacher ratios. Step four estimates the number of teachers needed to relieve overcrowded classrooms. Lastly, the fifth step estimates the number of teachers needed to give essential instruction and/or educational service not now provided.

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<sup>10</sup>Martin H. Bartels, "Index of Teacher Demand Through 1963," Educational Forum, XXIX (November, 1964), 68-9.

Chamberlin believes a school district must first survey its educational program and determine whether it should and can increase the instructional services provided. The number of additional teachers needed for these purposes can be estimated on the basis of such a survey. He also thinks projections should be limited to a five year period, and predictions should be made every year on a continuous basis.<sup>11</sup>

Ending the teacher shortage is the goal of numerous groups, agencies, and organizations. The American Federation of Teachers mentions some short-range stopgap things which can be done to increase the supply of teachers. These short-range measures comprise the remainder of this paragraph. The National Teacher Corps permits teachers with extraordinary dedication and energy to help improve the quality of education in poverty-area schools. The Job Corps enables children to escape from their poverty-restricted environment in order to acquire job skills and, even more important, hope. Additional teachers could be made available by appealing to former teachers of perhaps five to twenty years experience who have resigned from the profession to raise families. Perhaps, as a special inducement, some federal subsidy could be given to teachers with school age families to make it possible for them to employ assistance in the home.<sup>12</sup>

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<sup>11</sup>Leslie J. Chamberlin, "Five Steps to Predicting Future Teacher Needs," The American School Board Journal, CXLIV (February, 1962), 16-7.

<sup>12</sup>Charles Cogen and David Selden, "American Federation of Teachers' Position Paper," School and Society, XCV (February 4, 1967), 89.

In a statement issued September 9, 1966, the National Commission on Teacher Education and Professional Standards states,

There are several possible solutions to staffing classrooms with qualified teachers which should get immediate attention and action. There is a vast, uncounted pool of teachers who are wives and mothers. There are also Peace Corps returnees, unemployed 1966 graduates of Negro colleges, National Teacher Corps trainees, talented liberal arts college graduates who could be attracted into internship programs, and vigorous retired teachers.<sup>13</sup>

Drawing from the untapped sources of teacher supply will help to meet the immediate shortage problem. However, long-range planning and action are needed if the problem is not to recur year after year.

Making teaching a desirable, appealing, and attractive job is of the utmost importance. To do this involves good salaries, of course, but it also involves much more: help and encouragement to try new ideas, an environment which encourages personal and professional development, an opportunity to achieve status and recognition without having to leave the classroom, and an opportunity to participate in educational decision making. In short, the world of the teacher needs to be remade so that it will, in fact, be attractive to people capable of making education exciting.<sup>14</sup>

In the December, 1965, issue of "School and Community", the editorial by Dr. Inks Franklin summarized the teacher supply and demand outlook. "The distribution among the teaching fields is also out of balance," states Franklin.

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<sup>13</sup>National Commission on Teacher Education and Professional Standards, "A Statement on the Teacher Shortage," School and Society, XCV (February 4, 1967), 91.

<sup>14</sup>Ibid.

This underscores the need of public school teachers and guidance counselors to acquaint themselves with the predictable needs in teaching and for the necessity of counseling interested pupils as to where their best opportunities might be.

At the high school level, the main problem is not total numbers but the distribution of these over the demand field. Some fields are oversupplied and great shortages exist in others.

With the employment of more guidance counselors at the high school level it is hoped students interested in the profession of teaching will receive adequate information about available opportunities in the various fields of teaching and any imbalances in supply and demand may be more nearly brought into balance.<sup>15</sup>

#### IV. ANALYSIS OF THE SUBJECT MATTER FIELDS

Attempts are being made, as in the past, by a small number of organizations to provide information about teachers and teaching. Groups such as the Fund for the Advancement of Education established by the Ford Foundation, American Federation of Teachers, AFL-CIO, and the Department of Health, Education, and Welfare have provided numerous reports in the field of education. However, the Research Division of the National Education Association has done the most research throughout the years and has done this research most frequently. The research report, "Teacher Supply and Demand in Public Schools, 1967," will be the twentieth supply and demand report published by the National Education Association. Therefore, information in this report was collected from the reports published by the National Education Association and from data at the Department of Certification and

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<sup>15</sup>Inks Franklin, "Teacher Shortage 108, 609," School and Community, LII (December, 1965), 32.

Accreditation, State Department of Public Instruction, Topeka, Kansas, which supplies the National Education Association with information for its research reports.

In the years 1962-1966, sixty-three percent of all elementary teachers prepared in Kansas actually taught in Kansas in the year immediately following graduation. The percentage for all secondary teachers was only fifty-two percent, and the average for both secondary and elementary teachers was fifty-six percent. The highest figure for both was in 1962, when a percentage of sixty was attained. The low figure of fifty-four percent was reached in both 1963 and 1964.

Column 6 in Table I indicates the probable excess or shortage of teachers by fields in Kansas for the 1967-1968 school year. These predictive shortages or excesses range from a one hundred percent shortage in journalism to an oversupply of seventy-two percent in speech. These figures may be somewhat misleading because of the total numbers of teachers in each field. Journalism, for instance, has no qualified teachers to fill the probable need for three teaching vacancies. Therefore, this is shown on the table as a one hundred percent shortage. However, due to the number of positions involved, the thirty-six percent shortage of elementary teachers would seem much more serious. These differences will be explained as each teaching field is analyzed.

Agriculture. Based on past trends, agriculture should have a supply shortage of forty-seven percent in Kansas next year. However, the total number of teachers prepared in this field is small and

TABLE I  
PREDICTED EXCESS OR SHORTAGE OF TEACHERS  
FOR KANSAS, 1967-1968

| Field              | Percent of teachers prepared in Kansas who actually taught in Kansas (1962-1966) | Number of teachers prepared in Kansas (1966-1967) | Number of teachers who will "probably" teach in Kansas | Number of new teachers employed in Kansas (1965-1966) | Excess (+) or shortage (-) of teachers or (-) excess shortage (by percent) |
|--------------------|----------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------|
| Elementary         | 63                                                                               | 1383                                              | 871                                                    | 1351                                                  | -480                                                                       |
| Secondary          |                                                                                  |                                                   |                                                        |                                                       | -36                                                                        |
| Agriculture        | 63                                                                               | 13                                                | 8                                                      | 15                                                    | -47                                                                        |
| Art                | 49                                                                               | 97                                                | 48                                                     | 41                                                    | +17                                                                        |
| Commerce           | 56                                                                               | 152                                               | 85                                                     | 76                                                    | +12                                                                        |
| English            | 55                                                                               | 217                                               | 119                                                    | 212                                                   | -44                                                                        |
| Foreign Language   | 51                                                                               | 142                                               | 72                                                     | 72                                                    | 0                                                                          |
| Home Economics     | 50                                                                               | 135                                               | 68                                                     | 97                                                    | -30                                                                        |
| Industrial Arts    | 51                                                                               | 127                                               | 65                                                     | 59                                                    | +10                                                                        |
| Journalism         | 50                                                                               | 0                                                 | 0                                                      | 3                                                     | -100                                                                       |
| Library Science    | 100                                                                              | 2                                                 | 2                                                      | 8                                                     | -75                                                                        |
| Mathematics        | 58                                                                               | 136                                               | 69                                                     | 108                                                   | -36                                                                        |
| Music              | 58                                                                               | 168                                               | 97                                                     | 86                                                    | +11                                                                        |
| Physical Education | 51                                                                               | 293                                               | 149                                                    | 95                                                    | +57                                                                        |
| General Science    | 50                                                                               | 42                                                | 21                                                     | 40                                                    | -19                                                                        |
| Biology            | 49                                                                               | 84                                                | 41                                                     | 37                                                    | +11                                                                        |
| Chemistry          | 37                                                                               | 15                                                | 6                                                      | 6                                                     | 0                                                                          |
| Physics            | 30                                                                               | 12                                                | 4                                                      | 3                                                     | +33                                                                        |
| Social Studies     | 45                                                                               | 282                                               | 127                                                    | 138                                                   | -11                                                                        |
| Speech             | 56                                                                               | 56                                                | 31                                                     | 18                                                    | +13                                                                        |
| Other              | 58                                                                               | 55                                                | 32                                                     | 34                                                    | -2                                                                         |
| Secondary Total    | 52                                                                               | 2028                                              | 1055                                                   | 1148                                                  | -93                                                                        |
| Grand Total        | 56                                                                               | 3411                                              | 1910                                                   | 2499                                                  | -589                                                                       |

there is a near balance between supply and demand throughout the nation. Another factor of importance is that approximately twenty percent of the agriculture teachers graduating in 1965, were employed in some occupation other than teaching. Among all teaching fields, this is the highest percentage finding employment in other occupations.

Art. There appears to be an adequate supply of art teachers indicated by a seventeen percent excess in supply for Kansas next year. Nationwide, there is apparently no shortage now and none indicated in the near future.

Commerce. Commerce, as used in this report, should be considered synonymous with business education. Teachers of commerce are adequate in number, and the trend in Kansas shows an excess in supply of twelve percent. Over fifteen percent of the teachers in the field of commerce are otherwise gainfully employed as is indicated at the national level. Nationally, this field could be summed up as being in short supply. If more of the teachers trained in commerce would enter the teaching profession, supply would more adequately meet the demand in this field.

English. For a number of years, there has been a dire shortage of qualified English teachers. The trend in Kansas appears to be a shortage of forty-four percent for the coming year. Numerous teachers now have minimal preparation in English. These people often are hired as English teachers in order to fill positions which would otherwise go unfilled.

Foreign languages. There has been an increased interest in foreign languages in the last ten years. At the onset of this period,

the supply was very limited. However, there is now a better balance between supply and demand at the national level. In fact, if the predictive figures are correct, supply will exactly equal demand in Kansas for the coming year. The near balance of supply and demand should also be achieved at the national level.

Home economics. The home economics outlook for Kansas appears to indicate a shortage of thirty percent for next year. There are enough qualified home economics teachers throughout the nation, but it is estimated that only sixty-four percent will teach next year. Home economics leads all fields in the percent of qualified applicants immediately entering the homemaking profession after graduation. However, this fact could be due to most individuals in this field being women. This field could be summed up as being in low supply but not having a necessarily critical shortage at the national level.

Industrial arts. The outlook for industrial arts appears to be satisfactory for Kansas because of a predicted excess of ten percent for the coming year. However, the shortage of qualified teachers in this field is becoming critical when viewed at the national level. Federal government programs have established vocational-technical schools throughout the nation. Numerous teachers are needed to staff these schools to an adequate extent. The prediction in Table I for this field is, for this reason, probably quite inaccurate. The inaccuracy is indicated by the fact that as of June 15, 1967, the Kansas State University Placement Center\* had already received 142 requests for industrial arts teachers from Kansas schools for next year. Therefore, it

might well be that a critical shortage in supply could occur in Kansas prior to the coming school year.

Journalism. Past trends indicate a one hundred percent shortage of journalism teachers in Kansas for the coming school year. However, there were no journalism graduates reported this year and only three probable vacancies which would account for the shortage. Viewed at the national level, a near balance between supply and demand is forecast for this field.

Library science. The library science trend for Kansas indicates a probable shortage of seventy-five percent for next year. The total number of teachers prepared in this field is also small. Only two library science teachers were prepared in Kansas in 1966-1967. However, this secondary field has the highest percentage, seventy-four, of its graduates immediately entering the teaching profession when viewed at the national level. In summary, this field is shown nationally as being in low supply. If the situation is not alleviated rather quickly, the shortage could become critical.

Mathematics. The field of mathematics will have a probable shortage of thirty-six percent in Kansas for the coming year. This is quite similar to the national outlook for this field. Mathematics ranks second behind library science in the percent of graduates actually entering the teaching profession after graduation. This field has a shortage which could also become critical in forthcoming years.

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\*Note: Statistics quoted here were supplied by the placement officer of Kansas State University Placement Center.

Another factor which cannot be overlooked is the fact that mathematics graduates usually receive higher wages in nonteaching occupations. In spite of this fact, only six percent have chosen to seek employment in other occupations. It must be noted that this percentage is for the national level and not for Kansas.

Music. Graduates in the field of music should be in near balance of supply and demand for the coming year both in Kansas and throughout the nation. The forecast for Kansas indicates an eleven percent excess in supply for next year. However, due to serious shortages in other fields, this small excess should have no trouble whatsoever in finding teaching positions if they are qualified in at least one other field.

Physical education. Physical education graduates, particularly men, may find it difficult to secure teaching positions next year. The supply of all physical education graduates exceeds the demand by fifty-seven percent in Kansas for the coming year. Nationwide, men in this field have had the greatest excess of graduating teacher candidates in the last ten years. Women in this field are in near balance when supply is compared to demand.

Science (including general science, biology, chemistry, and physics). The field of science is faced with a critical shortage when viewed at the national level. However, the shortage in Kansas does not appear quite as alarming. In Kansas, only the field of general science has a severe shortage, which is forty-eight percent for next year. Differences between the different states makes it difficult to

determine what constitutes general science, because most science graduates choose at least one specific field in which to major. If the 1962-1966, estimates are accurate, the chemistry field has an equal supply and demand forecast for next year in Kansas. But biology and physics have probable excesses in supply of eleven and thirty-three percent respectively. Continuation of formal study seems more prevalent in the science fields than in the other fields. Also, a graduate degree in science generally yields a higher income in occupations other than teaching.

Social Studies. The trend for graduates in the field of social studies in Kansas is a shortage of eight percent for the coming year. This could conceivably be a distortion of statistics, because this differs from the national reports which indicate a very adequate supply. Social studies teachers unable to find a position in their major field will encounter no difficulty in finding a position if they have a minor in English, library science, foreign languages, or industrial arts.<sup>16</sup>

Speech. The field of speech has an excessive supply. This excess will probably be about seventy-two percent in Kansas next year. Nationally, the percentage will not be as great, but it will still be more than adequate. Information throughout the nation concerning nineteen percent of the speech graduates was not received. Five percent were employed in other occupations, and twelve percent were continuing formal study.

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<sup>16</sup>A. W. Larson, "The Outlook for Supply and Demand for Teachers for the Year 1964-1965," (Bismarck, North Dakota: North Dakota State Employment Service, 1963), p. 3. (Mimeographed).

Other. This category includes such fields as special education, guidance, driver's education, school psychologist, school social worker, school nurse, speech correction, junior high school, vocational subjects, and distributive education. This combined group of subjects has a predictive shortage of only six percent in Kansas next year. Nationally this field is summarized as being in short supply. Federal government programs have created numerous positions for teacher-trained graduates. If all of these new positions were to be adequately staffed at the present time, demand would greatly exceed supply in this field.

Elementary. The elementary teaching field has by far the most critical shortage of all teaching fields. The immensity of the shortage cannot be completely realized until the fact of total numbers is indicated. The shortage in Kansas for next year is predicted to be approximately thirty-six percent or an estimated 480 teachers. Viewed at the national level, this percentage would be quite similar. The elementary field leads all fields in the percent of its teachers who actually teach immediately after graduation. This percentage is eighty-one as compared to seventy-four, the highest of all secondary fields. Only two percent are employed in other occupations, two percent continue formal study, three percent immediately become homemakers, ten percent did not supply any information, and the remainder consisted of those entering military service or those who were still looking for either a teaching or a nonteaching position. When approximately four out of every five teachers in a field actually teach

immediately after graduation and there still remains a shortage of supply, one can see how critical the shortage actually is in that particular field. In fact, the national prediction for next year is that there will be an estimated shortage of 128,400 elementary teachers as compared to a deficit of 104,000 secondary teachers.

The total predicted shortage for Kansas next year is estimated to be twenty-four percent or almost six hundred teachers. Previously, this shortage was alleviated to some extent by the influx of teachers from other states. In a study conducted by Oklahoma State University, Oklahoma teacher training graduates who actually taught numbered 929 in 1965. Of 452 teachers placed in positions outside the state of Oklahoma, 107 were placed in Kansas. In other words, 11.5 percent of all Oklahoma teacher training graduates who actually taught took teaching positions in Kansas.<sup>17</sup> The major reason for this influx seemed to be salaries. Oklahoma and other states adjacent to Kansas have recently increased salaries, and now more of their teachers stay in their respective states instead of moving to Kansas. The following information from Table II is given to substantiate the previous statements.

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<sup>17</sup>Hal M. Buchanan, "Report of Activities and Services." (Stillwater, Oklahoma: Oklahoma State University Placement Services, 1965), p. 14.

TABLE II  
SALARY INFORMATION OF KANSAS  
AND ADJACENT STATES

|                                | Estimated average salaries of all classroom teachers in public schools, 1966-1967 | Percent increase in instructional staff salaries, 1956-1957 to 1966-1967 | Percent increase in instructional staff salaries, 1965-1966 to 1966-1967 |
|--------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|
| KANSAS                         | (3) \$6,100                                                                       | (3) 64.3                                                                 | (3) 5.3                                                                  |
| COLORADO                       | (1) \$6,625                                                                       | (4) 63.3                                                                 | (5) 4.2                                                                  |
| MISSOURI                       | (2) \$6,250                                                                       | (2) 64.7                                                                 | (2) 6.2                                                                  |
| NEBRASKA                       | (5) \$5,619                                                                       | (1) 81.3                                                                 | (1) 8.4                                                                  |
| OKLAHOMA                       | (4) \$6,000                                                                       | (5) 56.8                                                                 | (4) 4.9                                                                  |
| AVERAGE FOR ALL 50 U.S. STATES | \$6,821                                                                           | 63.7                                                                     | 4.9                                                                      |

The estimated average salaries of all classroom teachers in public schools, 1966-1967, in Kansas and adjacent states range from \$6,625 in Colorado to the low of \$5,619 in Nebraska. Average salaries for the other three states are \$6,250 for Missouri, \$6,100 for Kansas, and \$6,000 for Oklahoma. The average for all states was \$6,821 and was not attained by any of the previously mentioned states.<sup>18</sup>

<sup>18</sup> National Education Association, Research Division, Rankings of the States, 1967 (Research Report 1967-R1. Washington: National Education Association, 1967), p. 26.

The percent increase in instructional staff salaries, 1956-1957 to 1966-1967, for the five states was: Nebraska - 81.3 percent, Missouri - 64.7 percent, Kansas - 64.3 percent, Colorado - 63.3 percent, and Oklahoma - 56.8 percent.<sup>19</sup> The percent increase in instructional staff salaries, 1965-1966 to 1966-1967, for these five states was: Nebraska - 8.4 percent, Missouri - 6.2 percent, Kansas - 5.3 percent, Oklahoma - 4.9 percent, and Colorado - 4.2 percent.<sup>20</sup> The average ten year percent increase for all states was 63.7 percent, and the last yearly percent increase averaged 4.9 percent for all states. When comparing state and national figures of salaries, it is evident that salaries in Kansas and adjacent states are inadequate when compared to the national average for all states. This salary factor would affect the movement of teachers from one state to another.

Some states gain population much faster than others. Kansas is growing in population at the rate of 3.6 percent. This figure is the percent change in total resident population, April 1, 1960, to July 1, 1966. This growth rate ranks Kansas forty-second among all the states in the nation.<sup>21</sup> Kansas will have to do something to attract more people to the state or resign itself to the fact that

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<sup>19</sup>Ibid., p. 28.

<sup>20</sup>Ibid.

<sup>21</sup>Ibid., p. 10.

population will continue to decrease. If Kansas is unable to attract enough qualified teachers to fill both present and future needs, unqualified persons may be used on either a temporary or permanent basis. Thus, instead of increasing salaries to attract qualified teachers, salaries will probably drop. Teachers desperately needed by Kansas will probably go to states which can more adequately meet their needs if something is not done to alleviate the above mentioned problems.

The comparison of other factors which affect entry into actual teaching after graduation may be made between Kansas and the remaining states in Table III. Additional information may be found in Appendix A. Employment in an occupation other than teaching affected 3.6 percent of the teachers prepared in Kansas as compared to 4.6 percent for all states. Continuation of formal study affected 6 percent in Kansas and 5.7 percent at the national level. Military service affected 1.7 percent in Kansas as compared to 1 percent at the national level. Only women were compared in the homemaking occupation, and 4.2 percent were affected in Kansas as compared to 4.4 percent for all states. The percent of teachers from whom no information on present occupation was received was 5.7 percent in Kansas which was substantially better than the 11.5 percent at the national level. These statistics indicate occupations on November 1, 1965, of persons graduated between September 1, 1964, and August 31, 1965, with qualifications for standard teaching certificates.

TABLE III  
 SELECTED NON-TEACHING OCCUPATIONS  
 OF PERSONS GRADUATED BETWEEN  
 SEPTEMBER 1, 1964, AND AUGUST 31, 1965\*

|               | Otherwise<br>gainfully<br>employed | Continuing<br>formal<br>study | Military<br>service | Homemaking<br>(women) | No<br>information<br>received |
|---------------|------------------------------------|-------------------------------|---------------------|-----------------------|-------------------------------|
| KANSAS        | 3.6%                               | 6%                            | 1.7%                | 4.2%                  | 5.7%                          |
| ALL<br>STATES | 4.6%                               | 5.7%                          | 1.0%                | 4.4%                  | 11.5%                         |

\*NOTE: This study was made November 1, 1965, and shows the percent of teacher training graduates who graduated between September 1, 1964 and August 31, 1965, and were qualified for standard certification but who chose non-teaching occupations.

Comparative statistics between Kansas and all the states indicate only slight differences in all but one of the selected occupations. The category labeled "No Information Received" shows the greatest variation in percentages between Kansas and all states. Persons not reporting their present occupation could conceivably be teaching, but it is impossible to verify this possibility.

The role of the federal government in education is being felt more all the time. In 1966, the total appropriations for public schools was \$24,700,000,000. This was a 13 percent increase over the 1965 amount, and the most significant factor in this increase was the 13 percent increase in federal aid to schools.<sup>22</sup> At least twenty-two legislative bills aiding education were either passed or at least brought before Congress during 1966.<sup>23</sup> Substantial amounts of money were thus made available for public schools. Numerous teaching and nonteaching jobs were created, and many of these positions were filled by teachers. Therefore, the supply of teachers was unable to adequately meet the increased demand for teachers.

Other factors influence the demand for new teachers. The United States Office of Education has estimated that 14,040 new teachers were needed in the nonpublic schools in the 1966-1967 school year. The demand has been estimated for 1,800 new teachers for dependent schools in various parts of the world. An estimated 1,500 teachers may be required if the Teacher Corps is to be fully implemented. The flow of experienced teachers to advanced training may be increased by the estimated 900 fellowships for experienced teachers at teacher-training institutions as provided by the Higher Education Act of 1965.<sup>24</sup>

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<sup>22</sup>"Federal Funds and School Revenue," School and Society, XCIV (April 2, 1966), 174.

<sup>23</sup>"Washington Report-Directory of Legislation: Passed and Pending," Journal of Health, Physical Education, Recreation, XXXVII (October, 1966), 23-5.

<sup>24</sup>National Education Association, Research Division, Teacher Supply and Demand in Public Schools, 1966 (Research Report 1966-R10. Washington: National Education Association, 1966), p. 35.

As yet, the effect of these programs upon the typical components of teacher supply and demand has not been documented.

## V. SUMMARY

This report points out the fields in which shortages or excesses of teachers occur at the national level as well as in Kansas. The elementary field has by far the most critical shortage throughout the nation. Shortages are indicated for english, mathematics, "other" subjects, and the natural and physical sciences. Fields in which the general condition is low supply are commerce, home economics, library science, and industrial arts. A near balance between supply and demand seems to be the general condition in the fields of agriculture, physical education for women, journalism, foreign languages, and music. The national supply is estimated to be very adequate in the remaining fields of art, speech, social studies, and men's physical education.

The estimated shortage of almost 600 teachers in Kansas next year points out the seriousness of the situation. An estimated 480 teachers of the shortage of 600 teachers are in the elementary field. Therefore, the shortage of teachers at the secondary level is not nearly as serious as the shortage at the elementary level. If all secondary fields had identical percentages of teachers entering those fields, each field would have only a slight shortage of teachers. This would be helpful in attempting to balance supply and demand of

secondary teaching fields, but the inadequate supply of elementary teachers would still remain.

Numerous factors assist in determining the actual number of teachers immediately entering teaching after graduation. A substantial increase in teaching salaries would influence numerous teachers to remain in the teaching profession. Another possibility is that individuals in other occupations might enter the teaching profession if salaries were increased. But salary increases alone might not increase the supply of teachers to equal the demand for teachers. Graduate study, the draft, homemaking, employment in an occupation other than teaching, federal government programs, and population mobility also affect the numbers of teachers available to teach both throughout the nation and in a particular state or location. However, it is difficult to estimate the extent these various factors are changing the entry rate of potential teachers and the turnover rate of experienced teachers.

Numerous factors influence teacher supply and demand, but the information about these factors does not provide a basis for precise numerical estimates. The data reported by the different states has a range of precision and accuracy. Accurate estimates of teaching needs throughout the nation would be most helpful in counseling individuals interested in teaching as their occupational choice. The fulfillment of future needs is dependent not so much upon total numbers as upon the distribution of the new supply of potential teachers among the different fields and grade levels to be taught.

The most important problem of inadequate supply is the uneven distribution among the various fields of new teachers. If excesses in certain fields having an adequate supply would prepare themselves in fields having either a short supply or a critical shortage, it is possible that a more equal balance between supply and demand of teachers could be attained.

To be useful in forthcoming years, I recommend that this (report) (research) (study) be updated each year for the benefit of counselors, teachers, administrators, and those individuals considering teaching as a possible career. This could readily be accomplished by using statistics available at the State Department of Public Instruction, Topeka, Kansas.

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TABLE 5.--OCCUPATION ON NOVEMBER 1, 1965, OF PERSONS WHO WERE GRADUATED BETWEEN SEPTEMBER 1, 1964, AND AUGUST 31, 1965, WITH QUALIFICATIONS FOR STANDARD TEACHING CERTIFICATES

| Field of preparation          | Persons not teaching |              |       |                              |                  |                      |                        |                      |      |                          |                |         | Total percent | Number of graduates |
|-------------------------------|----------------------|--------------|-------|------------------------------|------------------|----------------------|------------------------|----------------------|------|--------------------------|----------------|---------|---------------|---------------------|
|                               | Persons teaching     |              |       | Otherwise gainfully employed | Continuing study | Persons not teaching |                        |                      |      | Seeking non-teaching job | No information |         |               |                     |
|                               | In state             | Out of state | Total |                              |                  | Military service     | Household work (women) | Seeking teaching job |      |                          |                |         |               |                     |
| 1                             | 2                    | 3            | 4     | 5                            | 6                | 7                    | 8                      | 9                    | 10   | 11                       | 12             | 13      |               |                     |
| HIGH SCHOOL (by fields)       |                      |              |       |                              |                  |                      |                        |                      |      |                          |                |         |               |                     |
| AGRICULTURE .....             | (Men .... 48.3%      | 7.8%         | 56.1% | 19.4%                        | 9.8%             | 4.2%                 | ...                    | 1.2%                 | ...  | 9.3%                     | 100.0%         | 991     |               |                     |
|                               | (Women ....          | ...          | ...   | ...                          | 25.0%            | 50.0%                | ...                    | ...                  | ...  | 25.0%                    | 100.0          | 4       |               |                     |
|                               | (Both .... 48.2      | 7.7          | 55.9  | 19.4                         | 10.0             | 4.2                  | ...                    | 1.2                  | ...  | 9.3                      | 100.0          | 995     |               |                     |
| ART .....                     | (Men .... 50.8       | 14.9         | 65.7  | 4.8                          | 8.8              | 1.2                  | ...                    | 2.8                  | 0.3% | 16.4                     | 100.0          | 1,248   |               |                     |
|                               | (Women .... 50.6     | 13.6         | 64.2  | 5.6                          | 4.8              | 0.1                  | 4.6%                   | 3.7                  | 0.7  | 16.1                     | 100.0          | 3,088   |               |                     |
|                               | (Both .... 50.7      | 13.9         | 64.6  | 5.4                          | 6.0              | 0.4                  | 3.4                    | 3.4                  | 0.6  | 16.2                     | 100.0          | 4,337   |               |                     |
| COMMERCE .....                | (Men .... 48.9       | 13.6         | 62.5  | 16.0                         | 6.4              | 2.4                  | ...                    | 0.8                  | 0.8  | 11.1                     | 100.0          | 2,114   |               |                     |
|                               | (Women .... 48.8     | 11.4         | 60.2  | 14.8                         | 3.2              | 0.1                  | 5.9                    | 1.8                  | 0.6  | 13.4                     | 100.0          | 4,700   |               |                     |
|                               | (Both .... 48.8      | 12.1         | 60.9  | 15.2                         | 4.2              | 0.8                  | 4.1                    | 1.5                  | 0.6  | 12.7                     | 100.0          | 6,814   |               |                     |
| ENGLISH .....                 | (Men .... 54.2       | 16.1         | 70.3  | 5.2                          | 11.1             | 2.7                  | ...                    | 1.2                  | 0.3  | 9.2                      | 100.0          | 3,660   |               |                     |
|                               | (Women .... 53.3%    | 16.7         | 70.0  | 4.3                          | 6.3              | 0.1                  | 5.1                    | 2.0                  | 0.3  | 11.9                     | 100.0          | 13,341  |               |                     |
|                               | (Both .... 53.5      | 16.6         | 70.1  | 4.5                          | 7.3              | 0.7                  | 4.0                    | 1.8                  | 0.3  | 11.3                     | 100.0          | 17,001  |               |                     |
| FOREIGN LANGUAGES .....       | (Men .... 50.9       | 17.0         | 67.9  | 3.2                          | 14.2             | 2.0                  | ...                    | 1.5                  | 0.2  | 11.0                     | 100.0          | 1,268   |               |                     |
|                               | (Women .... 50.5     | 17.2         | 67.7  | 3.8                          | 9.1              | 0.2                  | 3.7                    | 2.3                  | 0.3  | 12.9                     | 100.0          | 4,957   |               |                     |
|                               | (Both .... 50.6      | 17.2         | 67.8  | 3.7                          | 10.1             | 0.5                  | 2.9                    | 2.2                  | 0.3  | 12.5                     | 100.0          | 6,225   |               |                     |
| HOME ECONOMICS .....          | (Men ....            | ...          | ...   | 100.0                        | ...              | ...                  | ...                    | ...                  | ...  | ...                      | 100.0          | 2       |               |                     |
|                               | (Women .... 48.9     | 15.0         | 63.9  | 10.3                         | 4.2              | *                    | 8.4                    | 2.4                  | 0.4  | 10.4                     | 100.0          | 5,265   |               |                     |
|                               | (Both .... 48.8      | 15.0         | 63.8  | 10.4                         | 4.2              | *                    | 8.4                    | 2.4                  | 0.4  | 10.4                     | 100.0          | 5,267   |               |                     |
| INDUSTRIAL ARTS .....         | (Men .... 57.3       | 16.4         | 73.7  | 7.1                          | 6.7              | 3.6                  | ...                    | 0.5                  | 0.1  | 8.2                      | 100.0          | 3,206   |               |                     |
|                               | (Women .... 52.4     | 8.1          | 40.5  | 2.7                          | ...              | ...                  | ...                    | ...                  | ...  | 56.8                     | 100.0          | 37      |               |                     |
|                               | (Both .... 57.0      | 16.3         | 73.3  | 7.1                          | 6.6              | 3.6                  | ...                    | 0.5                  | 0.1  | 8.8                      | 100.0          | 3,243   |               |                     |
| JOURNALISM .....              | (Men .... 46.0       | 13.5         | 59.5  | 16.9                         | 5.4              | ...                  | ...                    | ...                  | ...  | 16.2                     | 100.0          | 37      |               |                     |
|                               | (Women .... 40.3     | 9.7          | 50.0  | 12.5                         | 4.2              | ...                  | 11.1                   | 2.8                  | ...  | 19.4                     | 100.0          | 72      |               |                     |
|                               | (Both .... 42.2      | 11.0         | 53.2  | 14.7                         | 4.6              | ...                  | 7.3                    | 1.8                  | ...  | 18.4                     | 100.0          | 109     |               |                     |
| LIBRARY SCIENCE .....         | (Men .... 70.6       | 11.8         | 82.4  | 5.9                          | ...              | ...                  | ...                    | 1.9                  | ...  | 9.8                      | 100.0          | 51      |               |                     |
|                               | (Women .... 62.6     | 10.9         | 73.5  | 9.2                          | 3.2              | ...                  | 3.2                    | 0.7                  | 0.3  | 9.9                      | 100.0          | 613     |               |                     |
|                               | (Both .... 63.2      | 10.9         | 74.1  | 9.0                          | 3.0              | ...                  | 3.0                    | 0.7                  | 0.3  | 9.9                      | 100.0          | 669     |               |                     |
| MATHEMATICS .....             | (Men .... 58.6       | 15.0         | 73.6  | 5.6                          | 8.7              | 3.8                  | ...                    | 0.5                  | 0.2  | 7.6                      | 100.0          | 4,425   |               |                     |
|                               | (Women .... 57.2     | 16.4         | 73.6  | 5.8                          | 6.4              | 0.2                  | 3.6                    | 1.0                  | 0.2  | 9.1                      | 100.0          | 3,271   |               |                     |
|                               | (Both .... 58.0      | 15.6         | 73.6  | 5.8                          | 7.6              | 2.2                  | 1.6                    | 0.7                  | 0.2  | 8.3                      | 100.0          | 8,245   |               |                     |
| MUSIC .....                   | (Men .... 54.8       | 13.5         | 68.3  | 7.5                          | 17.5             | 2.5                  | ...                    | 0.9                  | 0.1  | 13.2                     | 100.0          | 2,566   |               |                     |
|                               | (Women .... 52.1     | 18.0         | 70.1  | 2.7                          | 7.2              | 0.1                  | 5.1                    | 1.6                  | 0.1  | 12.9                     | 100.0          | 3,259   |               |                     |
|                               | (Both .... 53.3      | 16.0         | 69.3  | 7.7                          | 9.5              | 1.1                  | 2.9                    | 1.3                  | 0.1  | 13.1                     | 100.0          | 5,825   |               |                     |
| PHYSICAL EDUCATION .....      | (Men .... 52.4       | 15.1         | 67.5  | 6.5                          | 9.2              | 3.1                  | ...                    | 1.3                  | 0.2  | 12.1                     | 100.0          | 7,104   |               |                     |
|                               | (Women .... 58.1     | 20.9         | 79.0  | 3.3                          | 3.0              | 0.2                  | 1.9                    | 0.7                  | 0.2  | 9.7                      | 100.0          | 4,331   |               |                     |
|                               | (Both .... 54.6      | 17.3         | 71.8  | 5.3                          | 6.9              | 2.0                  | 1.4                    | 1.1                  | 0.2  | 11.2                     | 100.0          | 11,435  |               |                     |
| GENERAL SCIENCE .....         | (Men .... 57.4       | 13.3         | 70.7  | 4.6                          | 6.4              | 3.6                  | ...                    | 1.0                  | 0.2  | 13.5                     | 100.0          | 1,659   |               |                     |
|                               | (Women .... 57.1     | 13.3         | 70.4  | 4.9                          | 5.2              | ...                  | 3.7                    | 0.9                  | 0.1  | 14.8                     | 100.0          | 791     |               |                     |
|                               | (Both .... 57.3      | 13.3         | 70.6  | 4.7                          | 6.0              | 2.5                  | 1.2                    | 0.9                  | 0.2  | 13.9                     | 100.0          | 2,450   |               |                     |
| BIOLOGY .....                 | (Men .... 51.3       | 16.2         | 67.5  | 5.6                          | 11.9             | 3.3                  | ...                    | 1.2                  | 0.2  | 10.3                     | 100.0          | 2,694   |               |                     |
|                               | (Women .... 48.8     | 14.9         | 63.7  | 6.4                          | 11.0             | 0.1                  | 4.4                    | 2.7                  | 0.3  | 11.4                     | 100.0          | 1,936   |               |                     |
|                               | (Both .... 50.2      | 15.7         | 65.9  | 5.9                          | 11.6             | 1.9                  | 1.9                    | 1.8                  | 0.2  | 10.8                     | 100.0          | 4,630   |               |                     |
| CHEMISTRY .....               | (Men .... 46.8       | 13.6         | 60.4  | 9.5                          | 13.9             | 3.6                  | ...                    | 0.9                  | 0.4  | 11.3                     | 100.0          | 758     |               |                     |
|                               | (Women .... 58.3     | 11.5         | 69.8  | 5.8                          | 10.4             | ...                  | 2.1                    | 0.7                  | 0.2  | 11.0                     | 100.0          | 424     |               |                     |
|                               | (Both .... 51.0      | 12.8         | 63.8  | 6.1                          | 12.6             | 2.3                  | 0.8                    | 0.8                  | 0.3  | 11.3                     | 100.0          | 1,192   |               |                     |
| PHYSICS .....                 | (Men .... 54.4       | 12.9         | 67.3  | 9.2                          | 12.7             | 3.0                  | ...                    | ...                  | 0.5  | 7.3                      | 100.0          | 425     |               |                     |
|                               | (Women .... 50.7     | 12.0         | 62.7  | 5.4                          | 12.0             | ...                  | ...                    | 1.3                  | ...  | 17.3                     | 100.0          | 73      |               |                     |
|                               | (Both .... 53.8      | 12.8         | 66.6  | 8.6                          | 12.6             | 2.8                  | ...                    | 0.2                  | 0.4  | 8.8                      | 100.0          | 500     |               |                     |
| SOCIAL STUDIES .....          | (Men .... 46.6       | 12.4         | 59.0  | 7.6                          | 12.5             | 4.8                  | ...                    | 2.6                  | 0.3  | 13.2                     | 100.0          | 11,481  |               |                     |
|                               | (Women .... 44.0     | 12.7         | 56.7  | 7.5                          | 7.2              | 0.3                  | 5.3                    | 4.1                  | 0.5  | 18.4                     | 100.0          | 7,453   |               |                     |
|                               | (Both .... 45.6      | 12.5         | 58.1  | 7.6                          | 10.4             | 3.0                  | 2.1                    | 3.2                  | 0.4  | 15.2                     | 100.0          | 19,334  |               |                     |
| SPEECH .....                  | (Men .... 46.9       | 12.1         | 59.0  | 7.9                          | 14.0             | 2.5                  | ...                    | 0.9                  | 0.2  | 15.5                     | 100.0          | 852     |               |                     |
|                               | (Women .... 43.2     | 13.9         | 57.1  | 4.4                          | 11.6             | ...                  | 1.7                    | 0.7                  | 0.2  | 20.3                     | 100.0          | 2,366   |               |                     |
|                               | (Both .... 44.2      | 13.4         | 57.6  | 5.3                          | 12.2             | 0.7                  | 3.7                    | 1.5                  | 0.2  | 16.8                     | 100.0          | 3,218   |               |                     |
| OTHER .....                   | (Men .... 51.2       | 8.9          | 60.1  | 6.4                          | 11.0             | 2.6                  | ...                    | 1.5                  | 0.5  | 15.9                     | 100.0          | 1,142   |               |                     |
|                               | (Women .... 48.8     | 9.4          | 58.2  | 5.0                          | 9.5              | 0.1                  | 4.3                    | 1.0                  | 0.2  | 2.7                      | 100.0          | 2,523   |               |                     |
|                               | (Both .... 49.6      | 9.2          | 58.8  | 5.4                          | 10.6             | 0.9                  | 3.0                    | 1.2                  | 0.7  | 19.0                     | 100.0          | 3,665   |               |                     |
| HIGH-SCHOOL TOTAL .....       | (Men .... 51.8       | 14.0         | 65.8  | 7.0                          | 10.5             | 3.5                  | ...                    | 1.4                  | 0.3  | 11.5                     | 100.0          | 45,683  |               |                     |
|                               | (Women .... 50.9     | 13.2         | 64.1  | 6.3                          | 6.5              | 0.1                  | 5.0                    | 2.1                  | 0.4  | 13.5                     | 100.0          | 55,321  |               |                     |
|                               | (Both .... 51.3      | 14.7         | 66.0  | 6.6                          | 8.2              | 1.6                  | 2.8                    | 1.8                  | 0.3  | 12.7                     | 100.0          | 105,004 |               |                     |
| ELEMENTARY-SCHOOL TOTAL ..... | (Men .... 61.6       | 14.7         | 76.3  | 3.5                          | 4.4              | 1.8                  | ...                    | 1.5                  | 0.3  | 10.2                     | 100.0          | 5,479   |               |                     |
|                               | (Women .... 65.8     | 15.7         | 81.5  | 1.5                          | 1.9              | 0.1                  | 3.8                    | 1.4                  | 0.1  | 9.7                      | 100.0          | 85,579  |               |                     |
|                               | (Both .... 65.6      | 15.6         | 81.2  | 1.7                          | 2.2              | 0.2                  | 3.4                    | 1.4                  | 0.1  | 9.8                      | 100.0          | 73,008  |               |                     |
| GRAND TOTAL .....             | (Men .... 53.4       | 14.2         | 67.6  | 6.5                          | 9.6              | 3.3                  | ...                    | 1.4                  | 0.3  | 11.3                     | 100.0          | 53,762  |               |                     |
|                               | (Women .... 58.7     | 15.5         | 74.2  | 3.7                          | 4.1              | 0.1                  | 4.4                    | 1.8                  | 0.2  | 11.5                     | 100.0          | 124,850 |               |                     |
|                               | (Both .... 57.1      | 15.1         | 72.2  | 4.6                          | 5.7              | 1.0                  | 3.1                    | 1.7                  | 0.2  | 11.5                     | 100.0          | 178,612 |               |                     |
| *Less than 1/10 of 1 percent. |                      |              |       |                              |                  |                      |                        |                      |      |                          |                |         |               |                     |

\*Less than 1/10 of 1 percent.

A PREDICTIVE STUDY OF TEACHER SUPPLY  
AND DEMAND IN KANSAS, 1967-1968

by

JOHN HERBERT SCHIERLING

B. S., Kansas State University, 1964

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AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

College of Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1968

## ABSTRACT

This teacher supply and demand report points out the fields in which shortages or excesses of teachers occur at the national level as well as in Kansas. The elementary field has by far the most critical shortage throughout the nation. The seriousness of the situation is indicated by an estimated shortage of approximately 600 teachers in Kansas during the 1967-68 school year. An estimated 480 teachers of the 600 teacher shortage are in the elementary field. Therefore, the shortage of teachers at the secondary level is not nearly as serious as the shortage at the elementary level.

Factors probably affecting entry into actual teaching after graduation in any given state would include teachers' salaries, population mobility, immediate entrance to graduate study, the draft, becoming a homemaker, entering a profession other than teaching, and federal government programs. It is difficult to estimate the extent these various factors are changing the entry rate of potential teachers and the turnover rate of experienced teachers.

Accurate estimates of teaching needs throughout the nation would be most helpful in counseling individuals interested in teaching as their occupational choice. The fulfillment of future needs is dependent not so much upon total numbers as upon the distribution of the new supply of potential teachers among the different fields and grade levels to be taught. The most important problem of inadequate supply is the uneven distribution among the various fields of new teachers.